

## **REMARKS**

Applicants, by the amendments presented above, have made a concerted effort to present claims which more clearly define independent claims 19 and 36 over the prior art of record, and thus to place this case in condition for allowance. Claims 1-18 remain unamended. Therefore, this Supplemental Amendment is solely directed to claims 19-36.

Claims 19, 20, 33 and 36 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over United States Patent No. 6,349,722 to Gradon. Claims 21-28, 34 and 35 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Gradon in view of United States Patent No. 5,558,084 to Daniell et al. Claims 29-33 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Gradon in view of United States Patent No. 6,050,260 to Daniell et al. Reconsideration of these rejections in view of the amendments and the remarks made herein is requested.

Independent claim 19 has been amended to specify “(a) monitor the power input to said conduit heater; (b) determining a parameter relating to the resistance or temperature of said conduit heater or the flow rate of said gas through said humidifier from said power input”. Claim 36 has been amended to specify “conduit means for conveying said humidified gas from the humidifier means to the patient, conduit heating means having an electrical input power, and being associated with said conduit means, wherein the gas flowing through said conduit means is heated either directly or indirectly by said conduit heating means, whereby the level of heating depends on said electrical input power to said conduit heating means, and means for monitoring the electrical input power to said conduit heating means and determining a parameter indicative of the resistance or temperature of said conduit heating means or to the flow rate of said gas through said apparatus based on said input power to said conduit heating means”. Therefore, the improvement embodied in the present invention as

specified in claims 19 and 36 relate to determining the flow rate or temperature within the conduit of flow or the resistance of the conduit heater, from the power used by the conduit heater. None of the prior art references have any disclosure of monitoring power drawn by the conduit heater element and in fact include no apparatus for doing so. Therefore, Applicant submits that it is unclear from the Examiner's comments how such data could be collected. Typically, prior art conduit heaters will be energized at a set voltage level with the assumption that the outlet temperature of the humidifier will be at a set voltage level and therefore giving an approximate range of outlet temperatures for known flow rates.

In other prior art devices, the patient end includes a temperature sensor then it is close loop controlled to achieve a given delivery temperature. In neither case would there be any need to monitor the power drawn by the conduit heater. Claims 19 and 36 have been amended to explicitly require a conduit heater input power monitor to clarify this difference from the prior art.

Therefore, Applicant submits that the prior art does not render obvious the invention specified in amended claims 19 and 36. Reconsideration and allowance of amended claims 19 and 36 is requested.

In addition, claims 19 and 36 specify "open loop" control. Applicant reiterates its previous argument that the prior art relates to "closed loop or feedback control" in order to achieve a temperature within the conduit. The definition of closed loop control in this case is that a temperature sensor is provided within the conduit. The conduit temperature is therefore able to be used in a negative feedback loop to achieve a desired set point temperature at the patient end. In the present invention, a conduit sensor, i.e. a sensor within the conduit which connects to the patient, is not contemplated. Such open loop control as proposed in the present invention is not disclosed or suggested by the cited prior art. The apparatus as

claimed in claims 19 and 36 avoids the need for a conduit sensor while still achieving the advantage of such.

Therefore, Applicant submits that the prior art does not render obvious the invention specified in claims 19 and 36. Reconsideration and allowance of claims 19 and 36 is requested.

Applicant also request reconsideration and allowance of dependent claims 20-35 which are dependent upon claim 19 which Applicant submits is allowable.

Applicant has enclosed a Petition for a One-Month Extension of Time to extend the date for response to the Office Action to December 31, 2004.

In view of the above Amendments and Remarks, Applicant respectfully submits that the claims of the application are allowable over the rejections of the Examiner. Should the Examiner have any questions regarding this Amendment, the Examiner is invited to contact one of the undersigned attorneys at (312) 704-1890.

Respectfully submitted,

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